

a viewing surface to receive the [projection] displayable image from the [optic] optical system, the image on the viewing surface being viewable by a user;

a display housing in which the active matrix liquid crystal display panel, the optical system and the viewing surface are housed; and

a support that holds the display housing relative to the user's head.

2. (Amended) The apparatus of Claim 1 wherein the [display panel is an] active matrix liquid crystal display panel having an array of transistor circuits bonded to an optically transmissive substrate with an adhesive layer.

3. (Amended) The apparatus of Claim 1 wherein the display panel includes a polarizer to polarize the generated image in a first orientation, the [optic] optical system processing the image in the first orientation to a second orientation for receipt by the viewing surface.

4. (Amended) The apparatus of Claim 3 wherein the image is processed by reflection with the [optic] optical system.

5. (Amended) The apparatus of Claim 1 wherein the [optic] optical system comprises:

a first partially-transmissive mirror having a light transmissive first surface to transmit the generated image into the [optic] optical system and a reflective second surface to alter the polarization of light incident on the first surface; and

[an element to] wherein the cholesteric liquid crystal element reflects light having a first polarization back toward the second surface of the first mirror and to transmit light having a second polarization.

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7. (Amended) The apparatus of Claim [5] 1 wherein the [element is a] cholesteric liquid crystal element is positioned ~~between the active matrix liquid crystal display and the viewing surface.~~

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9. (Amended) The apparatus of Claim 1 wherein the viewing surface is an optical combiner which combines the [projection] displayable image with a viewing image.

10. (Amended) The apparatus of Claim 9 wherein the viewing image is a direct view image that is directed through a transparent element on a surface of the display housing.

Please add the following new claims:

12. The apparatus of Claim 1 wherein the apparatus comprises a binocular display system.

13. The apparatus of Claim 1 wherein the apparatus comprises a monocular display system.

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cont
14. A head-mounted display apparatus comprising:
an active matrix liquid crystal display panel to generate an image;
an optical system that receives the generated image and directs the image onto a cholesteric liquid crystal element that extends the optical path of the generated image by reflection of the image within the optical system, the optical system transmitting a displayable image;
a lens positioned between the cholesteric liquid crystal display and the user's eye and having a viewing surface to receive the displayable image from the optical system, the image on the viewing surface being viewable by a user;

a display housing in which the active matrix liquid crystal display panel, the optical system and the viewing surface are housed; and

a support that holds the display housing relative to the user's head and within the user's field of view.

15. The apparatus of Claim 14 wherein the display panel includes a polarizer to polarize the generated image in a first orientation, the optical system processing the image in the first orientation to a second orientation for receipt by the viewing surface.

16. The apparatus of Claim 15 wherein the image is processed by reflection with the optical system.

17. The apparatus of Claim 15 wherein the optical system comprises:
a first partially-transmissive mirror having a light transmissive first surface to transmit the generated image into the optical system and a reflective second surface to alter the polarization of light incident on the first surface; and
wherein the cholesteric liquid crystal element reflects light having a first polarization back toward the second surface of the first mirror and to transmit light having a second polarization.

18. The apparatus of Claim 14 wherein the cholesteric liquid crystal element is positioned between the active matrix liquid crystal display and the viewing surface.

19. The apparatus of Claim 14 wherein the apparatus comprises a binocular display system.

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